ABSTRACT OF THE DISCLOSURE

A structural frame (12) for dissipating heat from an electronic device (10) is provided. The structural frame (12), to which an electronic circuit board (14) containing a heat generating electronic component (16) is mounted, is injection molded from a thermally conductive, net-shape moldable polymer composition. The electronic component (16) that is within the device (10) is in thermal communication with the structural frame (12), so that the heat generated within the device (10) is transferred to the frame (14) and dissipated from the heat-generating device (10). An outer case (22) may be mounted to the frame (12) to finish the device (10) or the frame (12) may serve as all or a part of the outer device case (22) as well. In addition, the structural frame (12) has characteristics that may be engineered and used to shield the device (10) from electromagnetic interference.